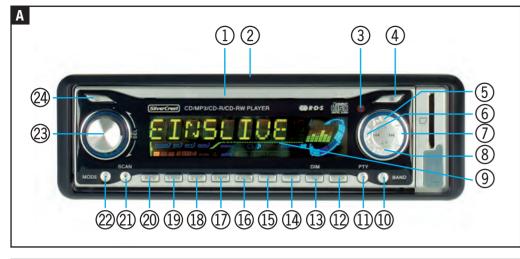
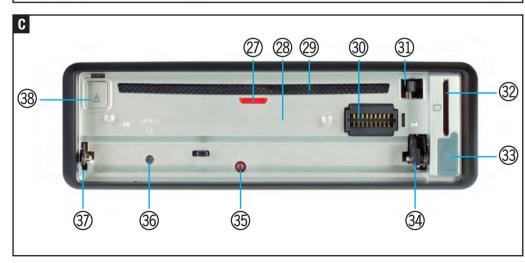


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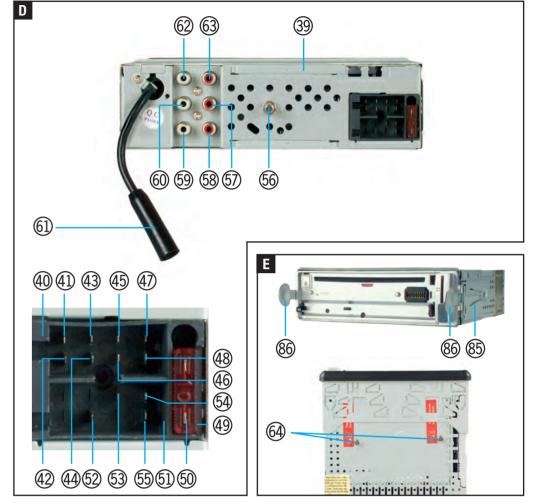


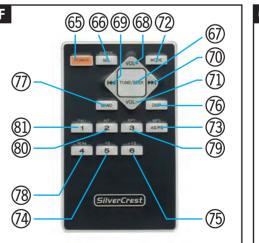




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Information



Car Radio KH 2391

Introduction

For your safety

Please read these instructions through carefully and fold out the page with the illustrations while doing so. You should follow the instructions closely when you operate the device. If you have any further questions concerning the use of this device, please contact the service centre for your country (see guarantee card). It is advisable to store the operating instructions in a safe place and to pass them on if you give the radio to anyone else.

Proper Use

The KH 2391 car radio is suitable for private use for receiving radio stations in the FM/MW/LW range and for playing back CD, CD-R, CD-RW, USB Memory-Stick, MP3 Player, SD and MMC audio storage media. The car radio has a removable control panel and an IR remote control device which can only be supplied with electricity by means of 1 lithium battery of type CR2025, 3VDC. The car radio may only be connected to the 12VDC supply. The device is suitable for connecting to four loudspeakers with an impedance of 4-8 Ohm, a maximum of four power amplifiers (to the four speaker output channels).

Any careless use or use other than for the intended purpose will result in the guarantee becoming invalid.

Equipment

Front of the Control Panel (Fig. A)

- (1) Control panel
- (2) Plastic frame
- ③ Sensor (remote control)
- (4) "Open" button
- (5) **TA**

"TA" button

- "Skip" button (back)
- ••
- "Skip" button (forwards)

- 8 AF
- "AF" button
- (9) Display window
- (10) (•) BAND
- "BAND" button "PTY" button
- ① PTY
- (12) DISP
- "DISP" button "MU/DIM" button
- (13) MU/DIM (14) 6 5
- "6" button "5" button
- (16) 4 RDM

(15)

- "4/RDM" button (17) **3 RPT** "3/RPT" button
- (18) 2 INT
- "2/INT" button "1/PAU" button
- (19) 1 PAU (20) A/PS
 - "A/PS" button "SCAN" button
- (1) () SCAN 22 • MODE
- "MODE" button
- "SEL/VOL" control knob "POWER" button

Reverse of the Control Panel (see Fig. B)

- ②5 Unlock mechanism
- 26 Plug-in connection strip

Front of the Car Radio (Control Panel removed) (see Fig. C)

- ② LED (red)/CD compartment
- 28 Front
- 29 CD compartment
- 30 Connection socket
- ③1) Opening mechanism
- 32 SD and MMC port
- 33 USB port
- 34 Control panel attachment point
- (35) LED (red)/power supply
- 36 Reset button
- (37) Control panel attachment point
- 38 CD eject button

Reverse of the Car Radio (see Fig. D)

- 39 Metal housing with vents
- (40) ISO plug jack for loudspeaker connection
- 41) Plug-in for rear right loudspeaker (+)
- 42 Plug-in for rear right loudspeaker (-)
- 43 Plug-In for front right loudspeaker (+)
- 4 Plug-in for front right loudspeaker (-)
- (45) Plug-in for front left loudspeaker (+)
- 46 Plug-in for front left loudspeaker (-)
- 47) Plug-in for rear left loudspeaker (+)





- (48) Plug-in for rear left loudspeaker (-)
- (49) Flat blade fuse socket
- 50 Flat blade fuse 10A
- (5) ISO plug jack to the 12VDC power connection (including connection of an automatic aerial)
- (5) Plug-in for 12VDC constant current
- 63 Plug-in for electric aerial
- 54 Plug-in for 12VDC ignition current
- (55) Plug-in for minus/earth connection in the vehicle
- 66 Attachment screw (including M5 nut and washer)
- (57) OUT/REAR cinch R plug jack (loudspeaker connection [red/rear right])
- (58) LINE IN R cinch plug jack (red/right)
- (59) LINE IN L cinch plug jack (white/left)
- OUT/REAR cinch L plug jack (loudspeaker) connection [white/rear left])
- (61) Aerial socket
- 62 OUT/FRONT cinch plug jack (loudspeaker connection [white/front left])
- 63 OUT/FRONT cinch plug jack (loudspeaker connection [red/front right])

Top of the Car Radio (see Fig. E)

64) Transport safety screw 2 x

Front of the Remote Control (see Fig. F)

66 ENTER SEL

POWER "POWER" button "ENTER/SEL" button











Skip button (back)



Skip button (forwards) "VOL" button (lower)



"MODE" button MODE

(72)73 MP3 AS/PS

"MP3/AS/PS" button

(74) -10

"-10/5" button 5 "+10/6" button 6

(75) +10 (76)

DISP "DISP" button "BAND" button

(76) BAND RDM 4

"RDM/4" button

79 RPT 3 "RPT/3" button

(80) INT "INT/2" button

PAU

"PAU/1" button

Rear of the Remote Control (see Fig. G)

- 82 Battery compartment
- 83 Battery holder
- Ø Unlock button

Installation Accessories (see Fig. E)

- (85) DIN assembly bracket
- 86 Installation key

Scope of Supply

- 1 x Car radio (including control panel)
- 1 x IR remote control (including 1 x lithium battery of type CR2025, 3VDC)
- 1 x Plastic box (for control panel)
- 1x DIN assembly bracket
- 2x Installation key
- 1 x Anchoring plate (including attachment material)
- 1x Operation manual

Technical Data

Car Radio

Rated voltage: 12VDC (minus pole negative, connected to the body within the vehicle) Power consumption: max. 10 A

Power output: max. 4 x 20 W active power factor

Distortion: - 40 dB (1%)

Amplifier (TDA 7386)

4-band preset EQ

Electronic master level for: bass and treble, loudness. fade control, balance

Preamplifier Input (LINE IN)

Power output: $775 \,\text{m} \, \text{V} = 0 \,\text{dB}$ Impedance: 47 k Ohm

Preamplifier Output (LINE OUT)

Power output: max. 5V Impedance: 10 k 0hm

Tone control

(lacktriangle)

Bass frequency: 100 Hz ± 10 dB Treble frequency: 10 kHz ± 10 dB









Possible Connections

ISO: 12VDC

ISO: loudspeaker (max. 2 pairs) (4-8 0hm)

MP3 player or USB memory stick

(USB 1.1 and 2.0)

SD or MMC

Max. four amplifiers

Display

Liquid crystal screen (8-digit alpha-numerical dot-matrix LCD display) Background illumination

(colour blue, 2 dimming levels)

3 Band PLL Tuner

Display: frequency band, radio stations, mono or stereo reception, pre-sets, activated EON, AF,

TA/TP and mute function

FM-Band (FM 1, FM 2, FM 3)

Frequency band: 87.5 - 108 MHz Channel increments: 50 kHz Intermediate frequency: 10.7 MHz Stereo separation: 30 dB

Noise suppression: 55 dB Preset stations: 18

MW Band (MW)

Frequency band: 530 - 1600 KHz Interim frequency: 450 kHz Available sensitivity: 32 dB µV

Pre-sets: 6

LW Band (LW)

Frequency band: 144 - 290 KHz Interim frequency: 450 KHz Available sensitivity: 32 dB µV Pre-set stations: 6

IR Remote Control

Rated voltage: 3V DC

Power supply: 1 x lithium battery

type CR2025, 3VDC

Current consumption: approx. 30 mA

Wavelength range: near infrared 0.7 - 1.4 µm

Dimensions: 85 x 6 x 52 mm (L x H x B)

GB/IE

Audio Storage Media

Playback

Data formats: MP3 with ID3, WAV compatible Media: CD, CD-R, CD-RW, SD, MMC, USB 1.1 and

2.0 (stick or plug-in connection)

Noise suppression: $> 60 \, dB$

Channel separation: > 50 dB

Frequency range: 20 Hz - 20 kHz

Display: directory, file, track, album, artist, duration Search function: file, track, first letter are displayed

■ Safety

Important Safety Instructions

The following instructions are provided for your safety and satisfaction when operating the device. Please note that non-compliance with the safety instructions may lead to a substantial risk of accident.

Explanation of the symbols and terms used:

▲ Warning! Danger of death!

▲ Caution! Risk of injury and damage to materials!

(1) **Tip!** What course of action you should follow!

⚠ Warning!

- Do not leave small children unsupervised near the packaging material! Otherwise there is a danger of death through suffocation!
- Do not leave small children unsupervised in the vicinity of the device!
- Protect yourself against electric shock! Avoid any short circuits during connection:
 - to the 12VDC power supply of the vehicle
 - to the max. 2 pairs of loudspeakers with an impedance of 4-8 0hm
 - to an amplifier
- Before connecting to the 12VDC supply of a car, obtain information on how to maintain electrical safety from the vehicles operation manual!
- When connecting to the 12VDC power supply of a vehicle, ensure that there is no voltage in the vehicle's connection cables. Equip the connection cables with fuse holders (2 x 15A)!



- When installing in a motor vehicle please ensure that the vehicle cannot be operated and has been securely immobilised! Turn off the ignition and park the vehicle with the handbrake applied.
- Complete the connection to the 12VDC power supply with full protection against moisture!
- Ensure that the 12VDC power supply is disconnected when carrying out installation, maintenance and servicing!
- Do not place the device in the vicinity of moisture, fire, heat and prolonged temperatures above 50°C!
- Do not damage any lines required for fuel, electricity, brakes, hydraulics, water or data transmission when attaching the screws!
- Ensure that the plug-in for 12VDC constant current (52), the plug-in for 12 VDC ignition current (54) and - if applicable - the plug-in electric aerial 63 do not come into contact with a fuel line (e.g. petrol pump)!
- Do not allow yourself to become distracted from the road traffic when operating or reading the displays of the car radio! Acquaint yourself with operation of the radio before starting your journey and practise how to use the radio's features safely! You should also adjust the volume in such a way that you can hear the sirens of emergency vehicles.

- Ensure that you do not injure or damage the sensitive hearing of your passengers (particularly infants, children and pets) in the vehicle! Adjust the volume and balance of the loudspeakers to a safe and comfortable level for all passengers! Note: Adjust the volume such that you can always hear the warning signals of other road users.
- Before operating the radio, check that all components have been installed in accordance with the instructions!
- Before assembling and operating the radio, check that the supplied parts are complete and not damaged!
- Use the car radio only with the original supplied parts!

- Do not cover the metal housing 39 with other objects!
- Protect all electrical contact surfaces against short circuits, moisture, damage and dirt!
- Do not place the device on or next to the battery of a motor vehicle!
- Prevent short circuits and damage! Please ensure that no foreign bodies or objects get inside the radio!
- In case of malfunctions or damage please disconnect the car radio immediately from the 12VDC power supply!
- Connect to the loudspeakers. CD changer. amplifier and audio storage media (CD, CD-R, CD-RW, USB memory stick, MP3 player, SD and MMC) in accordance with the respective operating instructions!
- The car radio should only be repaired by authorised and trained specialists! If your radio needs repairing, please contact the service centre for your country (see guarantee card)!
- Do not subject the device to any mechanical loads!
- Prevent theft and unauthorised use in particular when the device is installed in a motor vehicle! Before leaving a parked vehicle remove the control panel from the car radio and store it in the plastic box to protect it.
- Damaged fuses should only be replaced by new fuses of the same type and with the same ampere value!
- If you are not going to use the remote control for a prolonged period, please take out the battery!
- (!) Tip! What course of action you should follow!
- Take your time when familiarising yourself with operation of the car radio! Ensure a tidy and undisturbed environment for the work required and carry it out with maximum concentration.
- Plan the installation location with care. Ensure that when the car radio is installed it does not cause any obstacles to the driver.
- The very sensitive CD-R, CD-RW discs should be used in accordance with their instructions!
- Ensure that audio storage media can be played back unhindered! Clean CDs, CD-Rs and CD-RWs before use with a dry, antistatic cloth, beginning

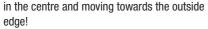








Safety/Preparation



- Please ensure that audio storage media used for playback are not exposed to condensation!
 Remove CDs, CD-Rs and CD-RWs from the device if the humidity is high and the ambient temperatures low.
 - All audio storage media that are used should have completely dry surfaces.
- Store audio storage media outside the device in an appropriate protective sleeve.
- Here is an overview of the most important technical terms:
- Receiver: An electronic device for receiving radio programmes and sound data from storage media - also a preamplifier.
- Tuner: A device that receives and plays back radio signals.
- PLL (Phase locked loop): An electronic switch which enables precise reception of radio frequencies.
- FM (Frequency Modulation): A reception band for radio programmes (frequency range: 87.5 - 108 MHz).
- MW (Medium Wave): A reception band for radio programmes (frequency range: 530 - 1600 KHz).
- LW (Long Wave): A reception band for radio programmes (frequency range: 144 - 290 KHz).
- CD/CD-R/CD-RW (Compact Disc): A storage medium for sound and picture data (disc-shaped ø approx. 120 mm).
- USB (Universal Serial Bus): A universal interface for data transmission.
- SD (Secure Digital Card): A storage medium for sound and picture data (rectangular, approx. 24 x 1 x 32 mm).
- MMC (Multimedia Card): A storage medium for sound and picture data (rectangular, approx. 24x1x32mm).
- MP3 (Moving Picture Experts Group Layer 3):
 A compressed audio format.
- ID3: Additional information which states the names of tracks and artists in audio files (e.g. MP3).
- LINE IN: Connection for feeding audio data into a hi-fi device.

- LINE OUT: Connection for delivering audio data from a hi-fi device.
- Cinch: A standardised plug-in connection for transmitting electrical signals.
- RDS (Radio Data System): Additional coded information transmitted by the radio stations in addition to conventional music and language broadcasts.
- AF (Alternative Frequency): A function which automatically receives the optimum frequency for the station being listened to.
- TA/TP (Traffic Announcement/Traffic Program): A function which allows channels with traffic information to be received.
- EON (Enhanced Other Networks): With the TA/TP function activated the radio switches automatically to another station of the same radio company as soon as traffic information is transmitted.
 - The traffic information is then played back at a preset volume.
- PTY (Program Type): This function enables the reception of specific types of program (e.g. rock music).
- HiFi (High Fidelity): A quality standard for audio playback equipment.
- ISO plug: An adapter for connecting electronic hi-fi equipment in accordance with the International Organization for Standardization.

Preparation

For connection and installation you require the following components and tools that are not included in the scope of supply:

- 1 x ISO plug for connecting the loudspeakers of a motor vehicle
- 1x ISO plug for the 12VDC connection
- 1 x Car aerial connection with plug-in connection
- 1 x A pair of loudspeakers, impedance 4-8 0hm (including supply line)
- 3x Fuse holder with 15A fuse
- 1 x DIN assembly cut-out in the instrument panel of the vehicle
- 9x Biscuit connectors



KH2391 Content UK.indd 10







Preparation / Installation



- 1x Screwdriver
- 1 x SW 8 spanner (jaw size 8 mm)
- 1 x Ballpoint pen

For the connection of an aerial installed in the vehicle you may require:

1 x Aerial adapters (in accordance with the technical data of the aerial)

For the connection of an amplifier you will require:

2x Cinch connection cables (insulation and plug: white/red)

■ Installation

Removing the control panel from the car radio

- Avoid hard contact with the display window 9.
- Press the "Open" button (4) and allow the control panel (1) to reach the horizontal position.
- Push the control panel ① slightly to the left and pull it forwards.
- Store the control panel in the plastic box (see also the illustration in the section "Attaching the Control Panel").

Installing the DIN assembly bracket in the vehicle's instrument panel

- Remove all packing material from the device.
- Unscrew the safety transport screws @ completely from the metal housing ③ (see Fig. E) and carefully release the plastic frame ② from the front of the device ②.
- Release the attachment points by slightly raising the upper frame edge and pulling it carefully towards the front.
- Push the two installation keys letween the metal housing letween and the preassembled DIN assembly bracket letween until they clearly lock in place. Ensure that the convex side faces outwards in

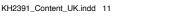
- each case. Store the installation keys (6) carefully for future use.
- Remove the DIN assembly bracket (§) and place it flush in the DIN assembly cut-out of the vehicle's instrument panel.
- Secure the DIN assembly bracket (a) against removal. Bend approximately ten tin dog points on both the upper and lower side of the DIN assembly bracket (a) from the inside towards the outside. Please ensure that the DIN assembly bracket (b) is installed flush in the DIN assembly cut-out.
- Attached the plastic frame ② completely to the front of the device ②8.

Connecting to the loudspeakers of the vehicle

- ① Tip! Use an ISO plug.
- Guide the connection cables of the loudspeakers mounted in the vehicle carefully out of the front of the DIN assembly bracket (§).
- Establish the connection between the connection cables of the ISO plug and the connection cables of the loudspeakers fitted to the vehicle with the help of biscuit connectors, ensuring that the connections in the biscuit connectors do not cause any short circuits and that the fixing screws are firmly tightened.
- Connect the lead of the plug-in (4) to the lead (+) for the rear right loudspeaker.
- Connect the lead of the plug-in (3) to the lead (+) for the front right loudspeaker.
- Connect the lead of the plug-in
 to the lead (-) for the front right loudspeaker.
- Connect the lead of the plug-in (45) to the lead (+) for the front left loudspeaker.
- Connect the lead of the plug-in 46 to the lead (-) for the front left loudspeaker.
- Connect the lead of the plug-in
 (4) to the lead (-) for the rear left loudspeaker.











Connecting to the vehicle's 12 V DC power supply

△ Warning!

- Before connecting to the 12VDC power supply of a motor vehicle, consult the vehicle's operation manual on how to maintain electrical safety!
- Ensure that when you establish the connection to the 12VDC power supply the connection leads of the vehicle are not carrying any voltage.
 Do not damage any safety equipment such as the on-board computer or the alarm system of the vehicle.
- Establish the connection to the 12VDC power supply with 3x 15A fuse holders!
- When installing in a motor vehicle you should ensure that the vehicle cannot be operated and is completely immobilised! Turn off the ignition and park the vehicle with the handbrake applied!
- During installation you should use tools with a double insulated handle!
- Avoid electrical short circuits when connecting to the 12VDC power supply.
- When establishing the connection between the car radio and the 12VDC power supply make sure it is completely protected against moisture!

① Tip! Use an ISO Plug.

- Please ensure that the intact 10A flat blade fuse is inserted into the flat the blade fuse socket as far as it will go.
- Guide the connection cables for the 12VDC power supply carefully out of the front of the DIN assembly bracket (§5).
- Establish the connection between the connection cables of the ISO plug and the connection cables of the 12VDC power supply with the 3x15A fuse holders. Ensure that the connections of the 3x15A fuse holders do not cause any short circuit and that the fixing screws are firmly tightened.
- Optional only if an electric aerial is connected:

Using one 15A fuse holder each, connect the cables for the 12VDC ignition current (4) and electric aerial (3) plug-ins to the connection cable for 12VDC ignition current of the vehicle. In this manner the car radio and an electric aerial can only use current from the vehicle when the ignition is switched on.

 Using a biscuit connector, connect the cable for the minus/earth connection plug-in in the vehicle (5) to the minus pole connection cable of the vehicle (minus pole of the battery, which is connected to the bodywork of the motor vehicle as standard).

Connecting an amplifier

- Tip! Use two cinch connection cables (insulation and plug: white/red).
 You can connect an amplifier to the device for each loudspeaker channel (LINE OUT).
- Install the two cinch connection cables in the vehicle according to their operating instructions.
- Pass two cinch connection cables to the amplifier and carefully out of the front of the DIN assembly bracket (85).
- Insert the red plug of the first cinch connection cable as far as it will go into the OUT/REAR cinch R plug jack (amplifier connection [red/rear right]) ⑤.
- Then insert the two red plugs of the first cinch connection cable as far as it will go into the REAR cinch R plug jack (amplifier connection [red/rear right]) of the amplifier.
- Insert the white plug of the first cinch connection cable as far as it will go into the OUT/REAR cinch L plug jack (amplifier connection [white/rear left]) @.
- Then insert the second white plug of the first cinch connection cable as far as it will go into the REAR cinch L plug jack (amplifier connection [white/rear left]) of the amplifier.
- Insert the red plug of the second cinch connection cable as far as it will go into the OUT/FRONT cinch plug jack (amplifier connection [red/front right]) (3).









- Then insert the second red plug of the second cinch connection cable as far as it will go into the FRONT cinch plug jack (amplifier connection [red/front right]) of the amplifier.
- Insert the white plug of the second cinch connection cable as far as it will go into the OUT/FRONT cinch plug jack (amplifier connection [white/front left]) @.
- Then insert the second white plug of the second cinch connection cable as far as it will go into the FRONT cinch plug jack (amplifier connection [white/front left]) of the amplifier.

Connecting a portable audio device

For establishing a cinch connection to any audio source the headphone output (3.5 mm stereo jack) of any audio device (e.g. MP3 player) can be connected to the car radio.

Use a 3.5 mm jack plug connection cable to 2x cinch plugs.

- Guide the cinch connection cable to the portable audio device and carefully out of the front of the DIN assembly bracket.
- Insert the red plug of the cinch connection cable as far as it will go into the LINE IN R cinch plug jack [red/rear right] 68.
- Insert the white plug of the cinch connection cable as far as it will go into the LINE IN L cinch plug jack [white/rear left] 69.
- Then insert the 3.5 mm stereo jack into the headphone output of the audio device.
- In order to play back the sound, press the

 MODE button ②, until the letters AUX appear in the display window.

For operation of the external device, please see its operating instructions.

Connecting to the aerial of the motor vehicle

- Insert the plug of the connection cable of the vehicle aerial as far as it will go into the aerial socket (ii) of the car radio. If necessary, use an aerial adapter in accordance with the technical data of the aerial.
- If present: Connect the 12VDC connection cable of an electric aerial to the electric aerial (3) pluq-in.

Attaching to the DIN assembly bracket

- Insert the rear of the car radio together with the connected cables carefully into the DIN assembly bracket 85.
- Ensure that no objects are able to cover the vents of the metal housing 39.

Ensure that there is no connection cable between

- the metal housing ③ and the DIN assembly bracket ⑥.

 Prevent the cables from becoming caught, as any damage may result in a short circuit and malfunctioning of the device or the vehicle's electronic system.
- Push the car radio into the DIN assembly bracket (5) until it distinctly locks in place.
- You should also secure your device against theft.
 Fix the attachment screw with the anchoring plate and the attachment material to the engine fire wall of the vehicle.
- Ensure that all cables are properly connected and that the power supply is working correctly.
 The LED (red)/power supply (35) flashes.
- Use the tip of a ballpoint pen to press the reset button no on the front of the device (see Fig. C).
 The default settings are activated.

Attaching the control panel

- Remove the control panel ① from the plastic box.
- Avoid hard contact with the display window 9.









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Installation / Operation

- Place the rear left-hand edge of the control panel ① on the control panel attachment point
 ③ on the front of the device.
- Ensure that the plug-in connection strip (26) is positioned in front of the connection socket (30).
- Carefully press the rear right-hand edge of the control panel ① against the control panel attachment point ④ until it distinctly locks into place.
- Fold the control panel ① upwards and allow it to lock into place.



Operation

Switching on

Press the button @.

The factory settings of the device are as follows:

- The word **[WELCOME]** appears in the display window (9).
- The buttons are illuminated in blue (these can be adjusted on two levels).
- Press the MU/DIM button (3) for 2 seconds. If it is pressed again for 2 seconds the brightness of the display window is increased once more.
 - The tuner is activated and [FM1] (1st FM band), [87.50] (station frequency) appears in the display window (9). [AF] flashes.
 - The loudspeakers play back the reception from the tuner.
- Turn the "SEL/VOL" control knob ② to adjust the volume as desired.

Switching off

• Press the _______ button @. The background illumination of the control panel ① goes off and the time appears in the display window ⑨. When the radio is switched off it stores all settings from the last time it was operated. The device automatically adjusts the time with the help of the radio signals received. When the radio is switched on again it plays back the last audio storage medium used or the tuner.

Selecting and adjusting the sound

VOL: Volume of the loudspeakers

 Adjust the loudspeakers to the desired volume by turning the "SEL/VOL" control knob 23.

BAS: Bass (lower range of the loudspeaker sound)

- Press THE "SEL/VOL" control knob ② until [BAS] appears in the display window ③.
- Turn the "SEL/VOL" control knob (2) to set the desired bass level.
 Values between [-7] and [7] can be selected.

TRE: Treble (higher range of the loudspeaker sound)

- Press the "SEL/VOL" control knob ② repeatedly until [TRE] appears in the display window ④.
- Turn the "SEL/VOL" control knob ② to set the desired treble level.
 Values between [-7] and [7] can be selected.

BAL: Balance (difference in volume between the left **[L]** and right **[R]** loudspeakers)

- Press the "SEL/VOL" control knob ② until [BAL] appears in the display window ⑨.
- Turn the "SEL/VOL" control knob ② to set the desired balance.
 Values between [10L] and [10R] can be selected. The mean value is [0].

FAD: Fading (difference in volume between the front **[F]** and rear **[R]** loudspeakers)

- Press the "SEL/VOL" control knob ② until [FAD] appears in the display window ③.
- Turn the "SEL/VOL" control knob 23 to set the







desired fading level. Values between [10F] and [10R] can be selected. The mean value is [0].

Your settings are automatically stored.

Selecting and adjusting playback functions

Press the "SEL/VOL" control knob (3) and keep it pressed for two seconds.
 In order to select the next function, press the "SEL/VOL" control knob (3) until you have reached the desired function.

TA SEEK/ALARM:

[TA SEEK]: If the radio is not receiving any Traffic Program Signal (TP Signal) from the current station, the next station with a Traffic Program Signal (TP Signal) is automatically searched for.

[TA ALARM]: If the radio is not receiving any Traffic Program Signal (TP Signal) from the current station, the radio informs you of this with a beep.

The radio does not change stations.

 Turn the "SEL/VOL" control knob 23 to set the desired function.

MASK DPI/ALL:

[DPI]: Radio stations with optimum reception frequencies are received.

[ALL]: Radio stations without an RDS signal with a high field strength are received.

 Turn the "SEL/VOL" control knob 23 to set the desired function.

RETUNE S/L:

[L]: The length of time during which radio stations with traffic information are searched for is 90 seconds.

[S]: The length of time during which radio stations with traffic information are searched for is 30 seconds.

Turn the "SEL/VOL" control knob ② to set the desired function.

DSP: (OFF/POP M/ROCK M/CLASS M/FLAT M): Selection of an acoustic pattern for various playback styles of music and language with preset bass and treble levels.

- Turn the "SEL/VOL" control knob (2); the acoustic pattern of your setting for BAS and TRE is selected.
- Turn the "SEL/VOL" control knob ② until
 [POP M] appears in the display window ③;
 the acoustic pattern for pop music is selected.
- Turn the "SEL/VOL" control knob ② until [ROCK M] appears in the display window ⑨; the acoustic pattern for rock music is selected.
- Turn the "SEL/VOL" control knob ② until [CLASS M] appears in the display window ⑨; the acoustic pattern for classical music is selected.
- Turn the "SEL/VOL" control knob ② until
 [FLAT M] appears in the display window ③;
 the acoustic pattern for speech is selected.

LOUD ON/OFF:

(lacktriangle)

The loudness function increases the playback level of the bass sounds when the volume is low.

- Press the "SEL/VOL" control knob ③.
 [LOUD ON] appears in the display window ⑨.
- Turn the "SEL/VOL" control knob 23 again.
 [LOUD OFF] appears in the display window (9).

ESP 10/40 (Electronic Shock Protection):

For the playback of CDs, CD-Rs or CD-RWs the data are stored for either 10 or 40 seconds in advance. This enables the sound to be played back free from interference (e.g. when driving over bumpy surfaces).

- Turn the "SEL/VOL" control knob ② until [ESP 10] appears in the display window ③.
 The data are stored for 10 seconds.
- Turn the "SEL/VOL" control knob ② until [ESP 40] appears in the display window ⑨.
 The data are stored for 40 seconds.

MULT ON/OFF (Function not possible on the KH 2391):

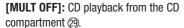
[MULT ON]: CD playback from the (optional) CD changer.







Operation



 Turn the "SEL/VOL" control knob 23 to set the desired function.

BEEP ON/OFF:

[BEEP ON]: A beep is heard through the loudspeakers when the radio is operated.

[BEEP OFF]: No beep is heard when the radio is operated.

Turn the "SEL/VOL" control knob ② to set the desired function.

SEEK 1/2:

[SEEK 1]: The automatic station search stops at the first radio station that can be received.

[SEEK 2]: The automatic station search only stops

after the button 6 or the button 7 is released.

 Turn the "SEL/VOL" control knob ② to set the desired function.

STEREO/MONO:

Stereo or mono sound playback during radio reception.

- Press the "SEL/VOL" control knob ②. [STEREO] appears in the display window ④.
- Turn the "SEL/VOL" control knob (2) again.
 [MONO] appears in the display window (9).

LOCAL/-DX-:

[LOCAL]: Radio stations in the local vicinity with a strong transmission signal are played back.

[-DX-]: Distant radio stations with a weak transmission signal are also played back.

- Turn the "SEL/VOL" control knob 23 to set the desired function.
- Press the "SEL/VOL" control knob 23.

Your settings are automatically stored.

After 10 seconds the device automatically changes to playback mode.

Setting the volume

- Increase the volume by turning the "SEL/VOL" control knob (23) in a clockwise direction.
- Reduce the volume by turning the "SEL/VOL" control knob ② in an anticlockwise direction.

Mute Function

The mute function enables you to turn off the loudspeakers.

- Press the MU/DIM button (3). Playback is muted and [MUTE ON] appears in the display window (9).
- Press the MU/DIM button (3) again. Playback continues as before the MUTE function was activated and [MUTE ON] disappears from the display window (9).

Setting the 3-Band PLL Tuner

Press the omode button until TUNER appears in the display window.

You can select 3 x FM frequency bands (FM1, FM2 and FM3), 1 x medium wave frequency band (MW) and 1 x long wave frequency band (LW). Each frequency band has six presets on which you can store radio stations.

Press the ● BAND button ⑩ and select the frequency band you wish to receive. In the display window ⑨ you will now see the designation of the frequency band (e.g. [FM2]), the frequency (e.g. [99.20]) of a radio station that is being received or the programme ID during stereo reception and [TP] for traffic information.

Automatic Station Search

In the case of preset playback function SEEK1:

Press the button 6 or button 7 for two seconds. The tuner automatically stops at the first radio station that it receives and shows the information in the display window 9.

In the case of preset playback function **SEEK2**:

Press and hold down the button 6 or
 button ? in order to approach the
 desired frequency. After the button has been







released the station search automatically stops at the next radio station with ideal reception and shows the information in the display window (9);

or

Press the SCAN button (2).
 The radio station search stops every 5 seconds at one of the radio stations that can be received.

Manual Radio Station Search

- Touch the w button 6 lightly in order to approach the desired lower frequency step by step.
- Touch the button [7] lightly in order to approach the desired higher frequency step by step.

You can determine the storage location of the radio station being received.

 Press the button of the desired storage location for approximately 2 seconds:

1 PAU	-button	19
2 INT	-button	(18)
3 RPT]-button	17)
4 RDM	-button	16
5	-button	15)
6	-button	(14)

The number of the storage location appears im display window ③.

Automatic Radio Station Search and Storage

This function searches automatically for six radio stations within the selected frequency band whose field strength is sufficient.

- Press the A/PS button (2) for approximately 2 seconds in order to start the function. The automatic radio station search stops for 5 seconds as soon as a radio station is received. The number of the storage location, e.g. [4] flashes in the display window. The car radio stores the radio station at storage location 4. You can determine the storage location of the radio station being received.
- In order to do so, press the button of the desired storage location within the five seconds in which the information flashes:

1 PAU	-button 🗐	
2 INT	-button (18)	



The number of the storage location appears in the display window (9).

Playing Back the Stored Stations

Press the button of the desired radio station that has been stored:

1 PAU	-button (19
2 INT	-button 🔞
3 RPT	-button ①
4 RDM	-button 📵
5	-button 🕦
6	-button (14)

Including Traffic Information in Playback

• Press the TA button ⑤ once in order to include traffic information in playback.

[TA] and **[TP]** alternate in the display window (9) if the radio station to which you are listening transmits traffic information. **[NO TP, TA]** flashes in the display window (9) if the radio station to which you are listening does not transmit any traffic information. For the duration of the traffic information being transmitted the tuner switches automatically within the same radio company to the radio station transmitting the traffic information. **[TRAFFIC INF]** appears in the display window (9).

Note: When traffic information is transmitted CD playback is interrupted and then started again automatically.

 Press the TA button (5) again in order to switch this function off.

AF Function (Alternative Frequencies)

This function makes it possible for the tuner to permanently optimise reception of a radio station.

 Press the AF button (8); [AF] appears in the display window (9). The tuner searches for and receives the optimum frequency that can be received on which the radio station being









Operation

- played back is transmitted.
- Press and hold down the AF button (a) so that [REG ON] appears in the display window (a).
 The tuner searches within the surrounding region for identical radio stations of the radio company.
- Press the AF button (8). [REG OFF] appears in the display window (9). The tuner searches for all radio stations.

PTY Function

Select this function in order to receive stations with special programme categories.

Music

- 1. POP M, ROCK M
- 2. EASY M, LIGHT M
- 3. CLASSICS, OTHER M
- 4. JAZZ M, COUNTRY
- 5. NATION M, OLDIES M
- 6. FOLK M

Speech

- 1. NEWS, AFFAIRS, INFO
- 2. SPORT, EDUCATE, DRAMA
- 3. CULTURE, SCIENCE, VARIED
- 4. WEATHER, FINANCE, CHILDREN
- 5. SOCIAL, RELIGION, PHONE IN
- 6. TRAVEL, LEISURE, DOCUMENT

Note: A few seconds after you have made your selection the search begins for a station transmitting the desired programme category. If no suitable station is found at the time, **[NO PTY]** appears in the display window and the station you were listening to previously is received again.

DISP Function

Press the DISP button (2); the display window
 now shows the current frequency. Press it again to call up the time, PTY and station.

Playing Back Audio Storage Media

CDs, CD-Rs and CD-RWs

① Tip!

- Prevent poor playback from audio storage media!
 Clean CDs, CD-Rs and CD-RWs before use with a dry antistatic cloth, starting from the centre and moving towards the outside edge!
- Ensure that playback from the sensitive audio storage media is not disrupted by condensation!
 Remove the CD, CD-R and CD-RW from the device if the humidity is high and ambient temperatures are low.
- Only audio storage media with completely dry surfaces should be used.
- Store the audio storage media outside the device in an appropriate protective sleeve.

Inserting a CD

- Press the "Open" button (4). The control panel (1) folds forwards.
 - The LED (red)/CD compartment @ and the CD eject button @ light up in red.
- Ensure that there is no CD, CD-R or CD-RW in the CD compartment ②.
- In order to do so, press the CD eject button 38.
- If you would like to listen to a CD, CD-R or CD-RW, insert it carefully into the CD compartment 29.

 The device draws the CD, CD-R or CD-RW in.
- Please ensure that the side on which the audio data are to be found is facing downwards.
- Fold the control panel ① upwards and allow it to lock into place.

Playback begins automatically with the first track and **[CD]** appears in the display window ①, followed by **[TOC READ]** (the data are read in). Information on the track and running time then appears.

This information varies according to the storage medium used.

Selecting Tracks

You can define the sequence of playback.

- Press the button 6 to jump to the previous track.
- Press the button (2) to jump to the next track.









Accessing Track Passages

Within a track you can access previous or subsequent passages.

- Press and hold down the button 6 in order to access a preceding passage within a track.
- Press and hold down the button in order to access a subsequent passage within a track.

As soon as the button used is released, playback continues from the accessed passage.

Selecting Tracks on the Basis of the Storage Location

(Only possible with MP3 data)

- Press the A/PS button ② once. [TRK SCH] appears in the display window ③.
- Press the "SEL/VOL" control knob 23 and the third figure of the storage location appears in the display window (9).
- Turn the "SEL/VOL" control knob ②, select the third figure of the storage location for the desired track and press the "SEL/VOL" control knob ②.
 In the display window ⑨ the second figure of the storage location flashes.
- Turn the "SEL/VOL" control knob ②, select the second figure of the storage location for the desired track and press the "SEL/VOL" control knob ③. In the display window ⑨ the first figure of the storage location flashes.
- Turn the "SEL/VOL" control knob ②, select the first figure of the storage location for the desired track and press the "SEL/VOL" control knob ②.
 The desired track plays back.

Searching for Tracks from Folders

You can only use this function with CDs, CD-Rs, CD-RWs, a USB stick or SD/MMC if these contain MP3 data and are arranged in folder structures.

- Press the A/PS button @ twice. [FILE SCH]
 appears in the display window ⑨.
- Press the "SEL/VOL" control knob ②. The available folder names appear in the display window ③.
- Press and turn the "SEL/VOL" control knob (3) to move between the folders in order to select the desired folder name.
- Press the "SEL/VOL" control knob 23 to confirm.

The tracks of the selected folder appear in the display window ③. Press and turn the "SEL/VOL" control knob ② to move within the folder. Press the "SEL/VOL" control knob ③ again to playback the desired track.

Searching for Tracks by the File Name

You can only use this function with CDs, CD-Rs, CD-RWs, a USB stick or SD/MMC if these contain MP3 data and are arranged in folder structures. You can select the track by entering the file name of up to 8 places.

- Press the A/PS button @ three times.
 [CHAR SCH] appears in the display window @.
- Press the "SEL/VOL" control knob ②. [A] flashes in the display window ⑨.
- By pressing the A/PS button @ the last entry (figure/letter) is deleted.
- Turn the "SEL/VOL" control knob ②, select the first letter of the file name (figure/letter) and confirm this by pressing the A/PS button ② again.
- Select and confirm one of the tracks by pressing and turning the "SEL/VOL" control knob 23.
- Press the "SEL/VOL" control knob ② to confirm the last letter/the last figure. Playback of the desired track begins.
- Tip: Instead of entering the 8-place filename you can press the "SEL/VOL" control knob (3) for 2 seconds to confirm the first letter. Select and confirm one of the tracks by pressing and turning the "SEL/VOL" control knob (23).

Changing the Folder Sequence

You can only use this function with CDs, CD-Rs, CD-RWs, a USB stick or SD/MMC if these contain MP3 data and are arranged in folder structures.

- Press the <u>5</u> button <u>6</u> and the folder before the folder currently running is played back.
- Press the 6 button 4 and the folder after the folder currently running is played back.

Pause

- Press the <u>1 PAU</u> button (19) and playback is interrupted.
- Press the <u>1 PAU</u> button @ again and playback continues.













Repeat

- Press the <u>3 RPT</u> button ① and the current track is repeated permanently. [RPT ON] appears in the display window ③. The current track is played back repeatedly.
- Press the **3 RPT** button ① again. **[RPT OFF]** appears in the display window ②.

Scanning

- Press the <u>2 INT</u> button (B) and the first few seconds of all tracks are played back. [INT ON] appears in the display window (9).
- Press the 2 INT button (18) again and playback continues without scanning the first few seconds.
 [INT OFF] appears in the display window (9).

Random Playback

- Press the 4 RDM button (§) und the tracks are played back randomly. [RDM ON] appears in the display window.
- Press the 4 RDM button (6) again and playback is no longer random. [RDM OFF] appears in the display window.

Removal

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- Press the "Open" button ④. The control panel folds towards the front.
 Press die CD eject button ③ and the CD, CD-R or CD-RW is pushed out of the CD compartment ②.
 Remove the CD, CD-R or CD-RW within 5 seconds. Otherwise this is drawn back into the device.
- USB Memory Stick, MP3 Player or SD/MMC
- ▲ Caution! Optimum data transfer at the USB port ③ can only be guaranteed with a USB memory stick. Due to the large number of USB memory sticks available it is not possible to guarantee compatibility with current and future USB products.

(!) Tip!

Use the USB memory stick/MP3 player or SD/MMC in accordance with the operating instructions!

Insertion

- Remove the protective cap from the USB plug 33.
- Insert the USB plug of the USB audio storage medium (MP3 player or USB memory stick) (with data in MP3 format) completely into the USB port 3.

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- Insert the SD/MMC (with data in MP3 format) completely into the SD and MMC port ② (see illustration of the device).
- Please ensure that the flattened corner is facing downwards and the contact surface to the left.

Playback

Playback begins automatically and the following information appears in the display window ③: track, running time, artist or folder. This information varies depending on the storage medium used.

 If the USB stick is already in the USB port (3), press the MODE button (2) until USB appears in the display window (9).

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 If there is an SD/MMC (with data in MP3 format) in the SD and MMC port ②, press the -button ② until ③ MEM-CARD appears in the display window.

For the following operations please see the following chapter:

Playing back from Audio Storage Media / CDs, CD-Rs and CD-RWs:

- Selecting tracks
- Accessing track passages
- Selecting tracks on the basis of the storage location
- Searching for tracks from folders
- Searching for tracks by the file name
- Changing the folder sequence
- Pause
- Repeat
- Scanning
- Random Playback

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Operation/Remote Control/Troubleshooting



- Remove the USB plug of the USB audio storage medium completely from the USB port ③.
 Or
- Press the SD / MMC in the SD and MMC port 32 in order to unlock it.
- Remove the SD/MMC from the SD and MMC port 32.

■ Remote Control

① Tip!

Familiarise yourself with use of the similar buttons on the remote control (see Fig. F). Please see the layout of the control panel ① for the functions. Ensure that the front edge of the remote control is pointing in the direction of the sensor ③ of the remote control ①.

- Please note that the AF function only works with ther AF button (a) on the control panel (1).
- Please also note the modified procedure for:

Adjusting the Volume

- Increase the volume by pressing the vol. button 68.
- Reduce the volume by pressing the vol. button n.

Inserting the Battery

- Insert a lithium battery of type CR2025, 3V DC into the battery holder (3) in such a way that the side marked with a "+" is facing upwards. Then push the battery holder (3) into the battery compartment (2) until it distinctly locks into place.

■ Troubleshooting

- ▶ Fault ▷ Cause ▶ Correction
- ► The device cannot be switched on and/or [ERROR] appears in the display window ⑨.
- The connections of the 12 VDC power supply

- are faulty.
- Check that the wiring of the device is correct (see the section on "Connecting to the Vehicle's 12 V DC Power Supply"). Then press the RESET button (3) with the tip of the ballpoint pen.
- The 10A ⑤ flat blade fuse in the flat blade fuse socket ⑥ is broken.
- Replace the broken flat blade fuse with a new 10A flat blade fuse. Then press the RESET button ® with the tip of the ballpoint pen. Or
- A 15A fuse of the fuse holder of the 12VDC power supply is broken.
- Replace the broken fuse with a new 15A fuse. Then press the RESET button with the tip of the ballpoint pen. If the fuse is broken again, check that the wiring is correct. Or
- > The device is broken.
- Please contact the service centre for your country (see guarantee card).

► The device cannot be operated.

- The control panel (1) is wrongly connected.
- Ensure that the control panel ① is correctly connected (see the section on attaching the control panel).
- > The battery of the remote control is flat.
- Replace the used battery with a new lithium battery of type CR2025, 3VDC.
- The sensors ③ of the control panel ① and/or remote control may be dirty.
- Clean the sensor 3 of the control panel 1 or the remote control if necessary.
 Or
- Please contact the service centre for your country (see guarantee card).
- The stored stations do not remain stored if the control panel is removed or the engine turned off.
- The connections for 12V constant current
 and 12 volt ignition current
 have been mixed up









Troubleshooting / Care and Maintenance / Disposal

on the ISO plug in the vehicle (various layouts of the respective manufacturers). As soon as the ignition is switched off the internal memory of the radio no longer has any power supply.

► The colour coding of the stated cables must be red and yellow. In this case swap over the connections for 12V constant current ② and 12 volt ignition current ③.

Some manufacturers provide the opportunity of swapping the two cables by means of preassembled plug-in connectors.

A further possibility is to purchase an additional ISO adapter (plug on socket) with plug-in connectors from a specialist shop and also to swap over the two contacts (red and yellow).

This work should only be carried out by a professional electrician.

■ Care and Maintenance

The device is maintenance-free.

- Turn the device off.
- Clean the plastic surfaces of the device and remote control with a dry cloth. Under no circumstances should you use solvent or other aggressive detergents.

Changing the Battery of the Remote Control

- Press the unlock button @ and remove the battery holder @ from the battery compartment @ (see Fig. G).
- Insert a lithium battery of type CR2025, 3VDC into the battery holder (3) in such a way that the side marked with a + is facing upwards.
 Then push the battery holder (3) into the battery compartment vuntil it distinctly locks into place.

Disposal



The packaging consists of 100 % environmentally friendly materials which can be disposed of at the local recycling points.



Do not throw electrical equipment into the domestic waste!

According to European Directive 2002/96/EC on old electrical and electronic equipment and its implementation in national law, used electrical equipment must be collected separately and recycled in an environmentally friendly manner.

Please contact your local authority for information on the possibilities of disposing of used electrical equipment.

Battery Disposal

As the end consumer you are legally obliged according to the battery regulations to return all used batteries. Batteries containing pollutants are marked with the adjacent symbols which indicate that it is forbidden to dispose of them in the normal domestic waste. The designations for the significant heavy metals are:

Cd = Cadmium, Hg = mercury, Pb = lead. Please take used batteries to a disposal centre of your local authority or return them to the dealer where you bought them.

With this you are fulfilling your legal obligations and making an important contribution to environmental protection.









■ Information

Important Guarantee Information

Thank you for deciding to purchase a SilverCrest product with 36 months' guarantee (from the date of purchase).

Please read the operating instructions carefully before using your product for the first time.

If in spite of the high level of quality of this device you should have cause for complaint or a hardware fault should occur, you have the opportunity of contacting the service hotline (see guarantee card). If it is not possible to solve the problem by telephone, the hotline will give you a processing number (RMA) as well as an address to which you can send your product to have it repaired under the guarantee. If you send your product in for repair, please enclose a copy of the sales receipt. The device must be packaged in such a way that it is not damaged during transport and the RMA number must be readily visible. Any products sent in without an RMA number cannot be processed.

Note: Your warranty claims are not affected by the guarantee.

Importer

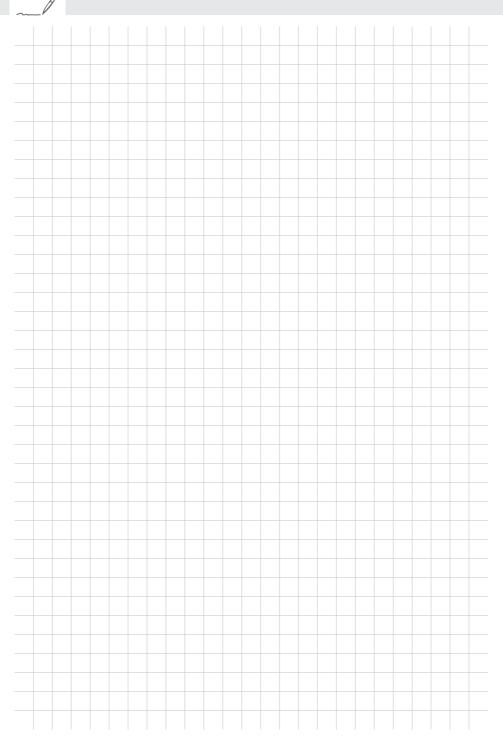
Kompernass GmbH Burgstr. 21 D-44867 Bochum Germany Subject to technical changes in the interests of further development.





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Guarantee

MP3 Car Radio KH 2391

In order to ensure that your device is repaired free of charge please contact our service hotline. Please have your sales receipt at hand when doing so. Kompernass Service United Kingdom 08707/876177

Kompernass Service Ireland 087-99 62 077

Please provide clear details of the sender:	www.mysilvercrest.de

S	urr	ıa	m	e:	

First name:

Street:

Postcode/Town:

VEP (P

Telephone:

Country:

Date/Signature:

Description of the fault:

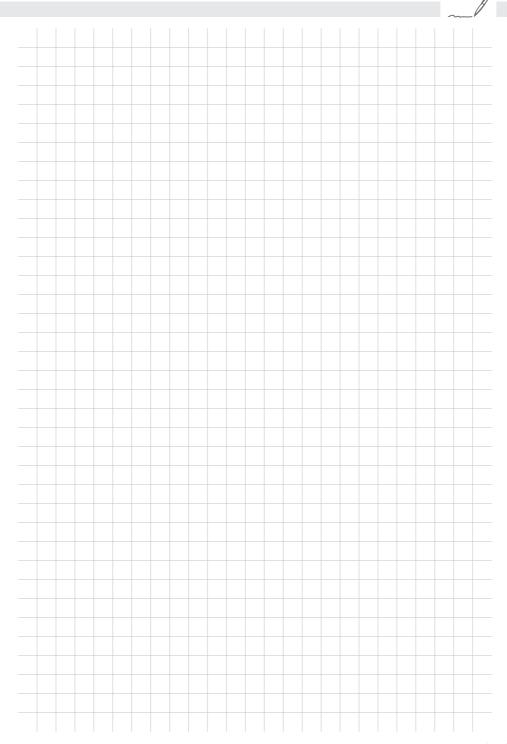








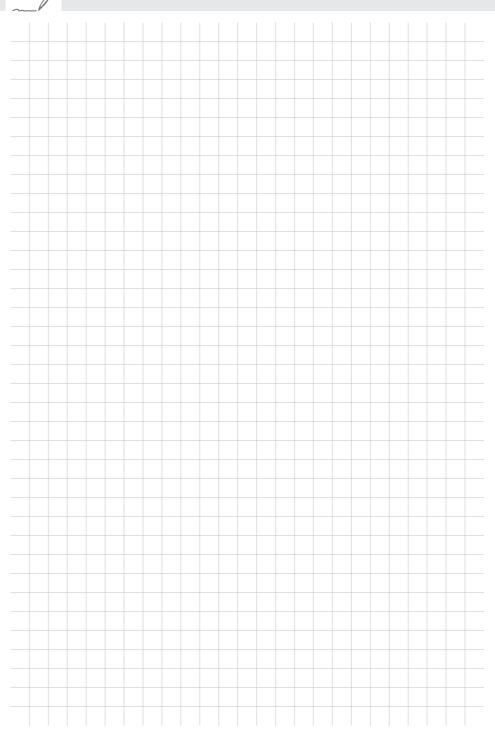




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